



Pacific Island Network Vital Signs Monitoring Plan

Appendix N: Protocol Implementation Schedule

Compiled by Kelly Kozar (HPI-CESU)

Pacific Island Network (PACN)

Territory of Guam

War in the Pacific National Historical Park (WAPA)

Commonwealth of the Northern Mariana Islands

American Memorial Park, Saipan (AMME)

Territory of American Samoa

National Park of American Samoa (NPSA)

State of Hawaii

USS Arizona Memorial, Oahu (USAR)

Kalaupapa National Historical Park, Molokai (KALA)

Haleakala National Park, Maui (HALE)

Ala Kahakai National Historic Trail, Hawaii (ALKA)

Puukohola Heiau National Historic Site, Hawaii (PUHE)

Kaloko-Honokohau National Historical Park, Hawaii (KAHO)

Puuhonua o Honaunau National Historical Park, Hawaii (PUHO)

Hawaii Volcanoes National Park, Hawaii (HAVO)

<http://science.nature.nps.gov/im/units/pacn/monitoring/plan/>

Suggested citation:

Kozar, K. 2006. Appendix N: Protocol Implementation Schedule. *In:* HaySmith, L., F. L. Klasner, S. H. Stephens, and G. H. Dicus. Pacific Island Network vital signs monitoring plan. Natural Resource Report NPS/PACN/NRR—2006/003 National Park Service, Fort Collins, Colorado.

Last revision: 1 August 2006

Organization contact information:

National Park Service, Inventory and Monitoring Program, Pacific Island Network, PO Box 52, Hawaii National Park, HI 96718, phone: 808-985-6180, fax: 808-985-6111, <http://www.nature.nps.gov/im/units/pacn/index.htm>

Hawaii-Pacific Islands Cooperative Ecosystems Studies Unit, University of Hawaii at Manoa, 3190 Maile Way, St. John Hall #408, Honolulu, HI 96822-2279

Acknowledgements:

This appendix was prepared with assistance from the Hawaii-Pacific Islands Cooperative Ecosystems Studies Unit (HPI-CESU), Task Agreement Number: J8080040032.

This appendix portrays the phased approach to the development and implementation of phase 1 PACN Vital Signs monitoring protocols. Protocol development includes: site visits, testing methods, database design, preliminary data collection, analyses of preliminary data to determine adequate sample size, and refinement of sampling based on these analyses. Data collected after initial implementation will be analyzed and sampling methods adapted if necessary. This schedule demonstrates monitoring protocol development and implementation for 2005 – 2008 with the understanding that monitoring will continue through 2011 (program review) and beyond.

2005
2006
2007
2008

	J	F	M	A	M	J	J	A	S	O	N	D
Climate												
Protocol Development												
Literature/Methodology Review												
Site Visit & Set Up												
Field Test/ Preliminary Data Collection												
Preliminary Data Analysis												
Refine Methodology												
Database Design												
Prepare Draft Protocol												
Peer Review												
Revise Protocol												
Produce Final Protocol												
Protocol Implementation												
Data Collection												
Data Analysis												
Adapt Methods and Sampling												
Maintain Monitoring												
Groundwater dynamics												
Protocol Development												
Literature/Methodology Review												
Site Visit & Set Up												
Field Test/ Preliminary Data Collection												
Preliminary Data Analysis												
Refine Methodology												
Database Design												
Prepare Draft Protocol												
Peer Review												
Revise Protocol												
Produce Final Protocol												
Protocol Implementation												
Data Collection												
Data Analysis												
Adapt Methods and Sampling												
Maintain Monitoring												

2005

2006

2007

2008

	J	F	M	A	M	J	J	A	S	O	N	D
Water quality												
Protocol Development												
Literature/Methodology Review	[Blue bar from J to O]											
Site Visit & Set Up												
Field Test/ Preliminary Data Collection				[Red bar from A to J]								[Red bar in N]
Preliminary Data Analysis												
Refine Methodology												
Database Design	[Red bar from J to S]											
Prepare Draft Protocol	[Red bar from J to N]											
Peer Review	[Yellow bar from J to F]											[Red bar in D]
Revise Protocol			[Yellow bar from M to M]									
Produce Final Protocol						[Yellow bar in J]						
Protocol Implementation												
Data Collection							[Yellow bar from J to D]					
Data Analysis												
Adapt Methods and Sampling												
Maintain Monitoring												
Status and trends of established invasive plant species												
Protocol Development												
Literature/Methodology Review											[Blue bar in O]	
Site Visit & Set Up	[Red bar from J to J]											
Field Test/ Preliminary Data Collection	[Red bar from J to J]											
Preliminary Data Analysis												
Refine Methodology											[Blue bar in O]	
Database Design							[Red bar from J to A]					
Prepare Draft Protocol	[Yellow bar from J to M]							[Red bar from J to D]				
Peer Review					[Yellow bar from M to J]							
Revise Protocol								[Yellow bar in A]				
Produce Final Protocol									[Yellow bar in S]			
Protocol Implementation												
Data Collection										[Yellow bar from O to D]		
Data Analysis												
Adapt Methods and Sampling												
Maintain Monitoring												

2005
2006
2007
2008

	J	F	M	A	M	J	J	A	S	O	N	D
Early detection of invasive plants												
Protocol Development												
Literature/Methodology Review												
Site Visit & Set Up												
Field Test/ Preliminary Data Collection												
Preliminary Data Analysis												
Refine Methodology												
Database Design												
Prepare Draft Protocol												
Peer Review												
Revise Protocol												
Produce Final Protocol												
Protocol Implementation												
Data Collection												
Data Analysis												
Adapt Methods and Sampling												
Maintain Monitoring												
Benthic marine community												
Protocol Development												
Literature/Methodology Review												
Site Visit & Set Up												
Field Test/ Preliminary Data Collection												
Preliminary Data Analysis												
Refine Methodology												
Database Design												
Prepare Draft Protocol												
Peer Review												
Revise Protocol												
Produce Final Protocol												
Protocol Implementation												
Data Collection												
Data Analysis												
Adapt Methods and Sampling												
Maintain Monitoring												

2005

2006

2007

2008

	J	F	M	A	M	J	J	A	S	O	N	D
Marine fish												
Protocol Development												
Literature/Methodology Review												
Site Visit & Set Up												
Field Test/ Preliminary Data Collection												
Preliminary Data Analysis												
Refine Methodology												
Database Design												
Prepare Draft Protocol												
Peer Review												
Revise Protocol												
Produce Final Protocol												
Protocol Implementation												
Data Collection												
Data Analysis												
Adapt Methods and Sampling												
Maintain Monitoring												
Freshwater animal communities												
Protocol Development												
Literature/Methodology Review												
Site Visit & Set Up												
Field Test/ Preliminary Data Collection												
Preliminary Data Analysis												
Refine Methodology												
Database Design												
Prepare Draft Protocol												
Peer Review												
Revise Protocol												
Produce Final Protocol												
Protocol Implementation												
Data Collection												
Data Analysis												
Adapt Methods and Sampling												
Maintain Monitoring												

2005 2006 2007 2008

	J	F	M	A	M	J	J	A	S	O	N	D
Focal terrestrial plant communities												
Protocol Development												
Literature/Methodology Review												
Site Visit & Set Up												
Field Test/ Preliminary Data Collection												
Preliminary Data Analysis												
Refine Methodology												
Database Design												
Prepare Draft Protocol												
Peer Review												
Revise Protocol												
Produce Final Protocol												
Protocol Implementation												
Data Collection												
Data Analysis												
Adapt Methods and Sampling												
Maintain Monitoring												
Landbirds												
Protocol Development												
Literature/Methodology Review												
Site Visit & Set Up												
Field Test/ Preliminary Data Collection												
Preliminary Data Analysis												
Refine Methodology												
Database Design												
Prepare Draft Protocol												
Peer Review												
Revise Protocol												
Produce Final Protocol												
Protocol Implementation												
Data Collection												
Data Analysis												
Adapt Methods and Sampling												
Maintain Monitoring												

2005

2006

2007

2008

	J	F	M	A	M	J	J	A	S	O	N	D
Seabirds												
Protocol Development												
Literature/Methodology Review		[Red]										
Site Visit & Set Up					[Red]							
Field Test/ Preliminary Data Collection					[Red]							
Preliminary Data Analysis				[Red]								
Refine Methodology						[Red]						
Database Design						[Red]						
Prepare Draft Protocol	[Yellow]								[Red]			
Peer Review					[Yellow]							
Revise Protocol							[Yellow]					
Produce Final Protocol								[Yellow]				
Protocol Implementation												
Data Collection										[Yellow]		
Data Analysis	[Green]											[Yellow]
Adapt Methods and Sampling		[Green]										
Maintain Monitoring					[Green]							
Bats												
Protocol Development												
Literature/Methodology Review	[Red]						[Blue]					
Site Visit & Set Up	[Red]											
Field Test/ Preliminary Data Collection	[Yellow]											
Preliminary Data Analysis							[Red]					
Refine Methodology							[Red]					
Database Design	[Yellow]											
Prepare Draft Protocol	[Yellow]											
Peer Review	[Green]											[Yellow]
Revise Protocol		[Green]										
Produce Final Protocol					[Green]							
Protocol Implementation												
Data Collection						[Green]						
Data Analysis								[Green]				
Adapt Methods and Sampling											[Green]	
Maintain Monitoring												

2005

2006

2007

2008

Fish harvest	J	F	M	A	M	J	J	A	S	O	N	D
Protocol Development												
Literature/Methodology Review	2006											
Site Visit & Set Up												
Field Test/ Preliminary Data Collection										2007		
Preliminary Data Analysis												
Refine Methodology												
Database Design				2007								
Prepare Draft Protocol	2007											
Peer Review											2008	
Revise Protocol												
Produce Final Protocol												
Protocol Implementation												
Data Collection												
Data Analysis												
Adapt Methods and Sampling												
Maintain Monitoring												
Landscape dynamics												
Protocol Development												
Literature/Methodology Review	2005									2008		
Site Visit & Set Up												
Field Test/ Preliminary Data Collection			2006									
Preliminary Data Analysis												
Refine Methodology	2006						2007					
Database Design												
Prepare Draft Protocol	2007						2008					
Peer Review					2007							
Revise Protocol								2007				
Produce Final Protocol								2007				
Protocol Implementation												
Data Collection										2007		
Data Analysis	2008											
Adapt Methods and Sampling			2008									
Maintain Monitoring							2008					